

**ABSTRACT****IN-PIXEL MEMORY FOR DISPLAY DEVICES**

5           Magnetoresistive random access memory (MRAM) is used to provide  
in-pixel memory circuits for display devices. A memory circuit (25) comprises  
memory elements, for storing a drive setting, and a read-out circuit, for  
example a flip-flop circuit (64), for reading-out the stored drive setting. The  
memory elements comprise two MRAMs (60, 62), each coupled to a  
10   respective input of the flip-flop circuit (64). A drive circuit (26) is coupled to the  
read-out circuit and a pixel display electrode (27) for driving the pixel display  
electrode (27) dependent upon the read-out drive setting with drive current that  
does not pass through the MRAMs (60, 62). A display device (1) is provided  
comprising a plurality of pixels (20) each associated with one such memory  
15   circuit (25) and drive circuit (26).

(Figure 5)